



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,389	04/12/2007	Robert Mirlach	081551-000000US	8976
20350 7590 02/09/2011 KILPATRICK TOWNSEND & STOCKTON LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834				
EXAMINER PHILLIPS, FORREST M				
ART UNIT 2832		PAPER NUMBER		
NOTIFICATION DATE 02/09/2011		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docket@kilpatricktownsend.com
ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

**Supplemental
Notice of Allowability**

Application No.

10/574,389

Examiner

FORREST M. PHILLIPS

Applicant(s)

MIRLACH ET AL.

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview conducted 2/1/11.
2. ☒ The allowed claim(s) is/are 1,2,4-11 and 14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|---|---|

/Forrest M Phillips/
Examiner, Art Unit 2832

EXAMINER'S AMENDMENT

The application has been amended as follows:

Please amend claim 1 to read:

Claim 1 (currently amended): An exhaust system for an internal combustion engine, comprising:

a first exhaust train starting from a first cylinder bank and including a flow-permeable muffler; and

at least one second exhaust train parallel thereto, starting from a second cylinder bank and including a flow-permeable second muffler, wherein the first muffler and the second muffler have a mutually deviating structure; and

wherein the first and second cylinder banks form a portion of a V8 engine having a crankshaft, and wherein the first and second cylinder banks each have a pair of cylinders that are ignited within 90° or 270° of operation of the crankshaft to produce odd order gas oscillations, wherein the odd order gas oscillations of the first cylinder bank have a phase relationship with the odd order oscillations of the second cylinder bank;

wherein the first and second exhaust trains are guided over the whole length with substantially no cross-over positions;

the first muffler comprises an inlet pipe and an outlet pipe;

the second muffler comprises an inlet pipe and an outlet pipe;

the outlet pipe of the first muffler has a comparatively small length with respect to the outlet pipe of the second muffler according to a ratio; and

wherein the first and second mufflers reduce acoustic volume of the odd order gas oscillations of the first and second cylinder banks while the ratio of the outlet pipes allows the first and second mufflers to influence the phase relationship, and wherein the outlet pipe of the second muffler comprises a slightly larger diameter than the outlet pipe of the first muffler such that the first and second mufflers do not provide substantial back pressure differences to the first and second cylinder banks.

Please cancel claims 3, 13, 15 and 16.

The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose the invention in combination as claimed. The prior art fails to disclose the first and second cylinder banks form a portion of a V8 engine having a crankshaft, and wherein the first and second cylinder banks each have a pair of cylinders that are ignited within 90° or 270° of operation of the crankshaft to produce odd order gas oscillations, wherein the odd order gas oscillations of the first cylinder bank have a phase relationship with the odd order oscillations of the second cylinder bank; there being no cross over of flow, and wherein the first and second mufflers reduce acoustic volume of the odd order gas oscillations of the first and second cylinder banks while the ratio of the outlet pipes allows the first and second mufflers to influence the phase relationship, and wherein the outlet pipe of the second muffler comprises a slightly larger diameter than the outlet pipe of the first muffler such that the first and second mufflers do not provide substantial back pressure differences to the first and second cylinder banks.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FORREST M. PHILLIPS whose telephone number is

(571)272-9020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 57127221990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elvin G Enad/
Supervisory Patent Examiner, Art Unit 2832

/Forrest M Phillips/
Examiner, Art Unit 2832